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# SP616 Fast-Growing Trees

The University of Tennessee Agricultural Extension Service

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## Fast-Growing Trees

*Wayne K. Clatterbuck  
Associate Professor  
Forestry, Wildlife & Fisheries*

Many homeowners desire shade from large trees to provide some degree of cooling during hot summer days. Often, new buildings and developed properties on former agricultural land are devoid of shade trees. In other cases, large trees that have provided shade for years have declined, been damaged in storms and other weather events and eventually have died and been removed. Owners often prefer a source of shade quickly for their homes and properties. Fast-growing trees could be the answer. However, there are some inherent problems with fast-growing trees that should be considered.

Fast-growing trees usually have weak and brittle wood that tends to break and create maintenance problems during wind and ice storms. The junctions of branches with the trunk of the tree are usually weak points where branches break. Once branches break at these major junctions, much of the tree crown is lost

and the tree has difficulty healing from the damage. These trees are often so badly damaged and unsightly that it is best to replace them.

Fast-growing trees are normally short-lived. Shade will be provided quickly and may last for several decades. However, these trees usually mature within 20 to 30 years and then begin to decline. The shade, even though provided quickly, will not be sustained over a long period.

Fast-growing trees usually become large trees and require a large amount of growing space, both above and below ground. For many properties, these trees expand beyond their current environment, resources and available space. Once the tree no longer has the space or resources for further growth, the tree begins to decline. Often the space available for these trees is limited because of poor placement choices. Make sure that the right tree is planted in the right



Photo credit: Ross Clatterbuck

Bradford pear with its large heavy limbs easily splits during wind storms.



Photo credit: Ross Clatterbuck

Weak branch junctions with the trunk of a Bradford pear tree.

place. Refer to UT Extension publication SP 511, **Plant the Right Tree in the Right Place**, for further information.

Although fast-growing trees may be desirable as a quicker source of shade, most of these trees have inherent problems that will increase both their maintenance and costs for the long term. The following table lists several fast-growing trees that can be grown to satisfy a shading objective, but also suggests prob-

lems that homeowners should consider before selecting the tree.

Everyone desires the beauty of trees and the shade that they provide, but potential problems that are inherent with fast-growing trees are often overlooked. Assess the qualities of each of these trees and weigh whether their short-term faster growth is acceptable when compared to their potential problems.

### Fast-Growing Trees

Botanical & Common Name	Concerns and Items of Interest
<i>Acer saccharinum</i> silver maple	Short bole (trunk) and quickly branching crown; early rapid growth; often called soft or water maple; susceptible to ice and wind damage with its brittle wood; produces a multitude of seed; branches often droop, requiring pruning.
<i>X Cupressocyparis leylandii</i> Leland cypress	Rapidly growing, non-native tree often outgrows space provided; requires regular pruning; three canker diseases have been documented in TN; susceptible to defoliation from bagworms.
<i>Fraxinus</i> spp. Ash	Often lacks a dominant terminal leader, leading to wide crowns. Opposite branching pattern makes ash susceptible to ice and wind damage. Not as fast-growing compared to other trees.
<i>Liquidambar styraciflua</i> sweetgum	Produces fruiting structures (sweetgum balls) that profusely litter the ground and are considered undesirable by some. Roots tend to stay near the surface of the soil and tend to root sprout. Recommended for fall color; easily adapts to most sites.
<i>Liriodendron tulipifera</i> yellow-poplar	Fast-growing, large size and weak wood. Requires large amount of growing space. Very susceptible to ice, sleet and glaze storms. The state tree in Tennessee.
<i>Pinus strobus</i> eastern white pine	Large tree that usually exceeds the space provided; will not tolerate extended droughts and extremely hot temperatures; susceptible to various insects, especially when under stress.
<i>Platanus occidentalis</i> American sycamore	Large leaves do not decay rapidly; dull-color leaves often shed early in the fall or during late summer droughts; susceptible to anthracnose disease.
<i>Populus deltoides</i> eastern cottonwood and hybrids	One of the largest hardwood trees; is short-lived but the fastest-growing species in the US. Loses leaves early, in late summer and early fall. Has male and female trees; female trees produce the "cotton" seed. Susceptible to numerous insects and diseases. Easily damaged in storms with its weak wood and shallow roots.
<i>Pyrus calleryana</i> 'Bradford' Bradford pear	Smaller tree but branches break readily during wind and ice storms, deforming the shape of the tree crown. Short-lived, usually less than 30 years. Other <i>callery</i> pears such as 'Aristocrat' or 'Redspire' with better form are recommended.
<i>Quercus palustris</i> pin oak	On alkaline soils, foliar chlorosis (yellowing) occurs; does not self prune readily retaining lower branches; branches are nearly horizontal, often bending downward; highly vulnerable to ice; retains brown leaves into the winter; large size often exceeds growing space.
<i>Salix</i> spp. weeping willow	Wood is light and weak; branches easily break; high maintenance because of frequent breakage; short-lived; wide lateral branching; roots often affect underground water, sewer and septic lines.

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